

Application No. 09/852,709
Docket No. ACT 201/ Shipley 03-10

Art Unit 2874
Examiner Michael J. Stahl

In the Drawings:

Please amend Fig. 10 as marked in red on the copy attached hereto. Removal of the fiber portions in the gap 540 is made to correct an obvious clerical error in the preparation of the drawings, as the drawing on sheet 6/6 of the provisional application, from which priority is claimed (and which is incorporated by reference), shows no fiber portions in the gaps. The change of lines from solid to dashed and vice a versa in Fig. 10 is made to conform Fig. 10 to the specification and to comport with standard drafting conventions, in which hidden structure is dashed. No new matter is added. Assignee respectfully requests that the Examiner approve and enter the drawing changes.

In the Claims:

Please cancel claim 19 without prejudice.

Please add new claims 29-42.

29. (New) The method of claim 20, wherein said mounting comprises mounting said first support structure to permit longitudinal motion of said first support structure along the direction of the optical axis of a selected one of said first optical fibers.

30. (New) An optical switch assembly comprising:

- a mounting apparatus;
- a fixed optical array including at least one chip with a plurality of first and second grooves, said fixed optical array being immobile relative to said mounting apparatus;
- a movable optical array including at least one chip with a plurality of first and second grooves, said movable optical array being movable along said mounting apparatus along the direction of the longitudinal axis of a selected one of said second grooves of the movable array;
- a plurality of first optical fibers mounted in said first grooves of said fixed optical array;
- and
- a plurality of second optical fibers mounted in said first grooves of said movable optical array.

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31. (New) The optical switch assembly of claim 30, wherein said mounting apparatus includes a plurality of mounting structures which include one or more of the group composed of rails, fibers, and spheres and wherein a respective mounting structure is engaged with a respective second groove of the fixed and movable arrays.

32. (New) The optical switch assembly of claim 31, wherein said mounting apparatus comprises a substrate.

33. (New) The optical switch assembly of claim 32, wherein said rails are integral with said substrate.

34. (New) The optical switch assembly of claim 33, wherein said rails have a rectangular profile.

35. (New) The optical switch assembly of claim 33, wherein said rails have a semi-circular profile.

36. (New) The optical switch assembly of claim 33, wherein when said chips are mounted on said substrate and wherein said first and second grooves are on a surface of said chips closest to said substrate.

37. (New) The optical switch assembly of claim 32, wherein said substrate comprises a plurality of first grooves.

38. (New) The optical switch assembly of claim 37, wherein said mounting structures comprise fibers affixed to said plurality of first grooves in said substrate.

39. (New) The optical switch assembly of claim 37, wherein said mounting structures comprise a first plurality of spheres affixed to said first grooves in said substrate and a second plurality of movable spheres positioned within said first grooves in said substrate, said fixed optical array being mounted on said affixed spheres and said movable optical array being mounted on said movable spheres.

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40. (New) The optical switch assembly of claim 31, wherein said substrate includes a first plurality of grooves and a second plurality of grooves extending in a transverse direction to said first plurality of grooves.

41. (New) The optical switch assembly of claim 40, comprising first mounting structures positioned in said substrate first plurality of grooves, said fixed optical array being affixed to said first mounting structures.

42. (New) The optical switch assembly of claim 41, comprising second mounting structures in said substrate second plurality of grooves, said movable optical array being movable on said second mounting structures.

Please amend the claims to read as follows. A marked-up copy of the amended claims is provided in the Attachment.

1. (Amended Once) An optical switch assembly comprising:

- a fixed optical array;
- a movable optical array;
- a plurality of first optical fibers mounted on said fixed optical array and a plurality of second optical fibers mounted on said movable optical array; and
- a mounting apparatus comprising a plurality of mounting structures, wherein said fixed optical array is immobile relative to said mounting apparatus and said movable optical array is movable relative to said mounting apparatus along the direction of the optical axis of a selected one of said second optical fibers.

3. (Amended Once) An optical switch assembly comprising:

- a fixed optical array;
- a movable optical array;
- a plurality of first optical fibers mounted on said fixed optical array and a plurality of second optical fibers mounted on said movable optical array; and

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a mounting apparatus comprising a plurality of mounting structures, wherein said fixed optical array is immobile relative to said mounting apparatus and said movable optical array is movable along side mounting apparatus, and
wherein said fixed optical array includes an upper chip mated to a lower chip, said chips including grooves which mate to receive said first optical fibers and cut-in portions which create a notch between said upper and lower chips, and said movable optical array includes an upper chip mated to a lower chip, said chips including grooves which mate to receive said second optical fibers and cut-in portions which create a notch between said upper and lower chips.

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20. (Amended Once) A method for making an optical switch assembly, comprising:
positioning a plurality of first optical fibers in a first support structure and a plurality of second optical fibers in a second support structure;
mounting said first and second support structures on at least one mounting apparatus, by positioning grooves, located on said first and second support structures, on mounting structures located on said mounting apparatus; and
affixing one of said first and second support structures to said mounting apparatus.

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25. (Amended Once) The method of claim 20, wherein said mounting comprises:
positioning a pair of fibers within cut-in portions of said first and second support structures;
and
affixing one of said first and second support structures to said pair of fibers.

26. (Amended Once) The method of claim 25, wherein said first and second support structures each include upper and lower support portions, each said portion having a pair of said cut-in portions, wherein said cut-in portions of said upper support portion mate with said cut-in portions of said lower support portion to create notches for receiving said pair of fibers.

27. (Amended Once) The method of claim 20, further comprising preparing said mounting apparatus, including: